

R E M A R K S

Claims 1 and 8 were rejected under 35 USC 112, first paragraph. Applicants respectfully traverse. The Examiner states that

In the disclosure, on page 6, line 1, “self-describing data-independent binary format 200.” Is critical or essential to the practice of the invention but not included in the claims(s) is not enabled by the disclosure [citation of a case]. Applicant claimed only “self-describing format” which is an incomplete claim. Further the cited Fig. 2, element 200 does not describe or show any type of binary data format. It is known in the art that the binary format for data types is a computer dependent.

It appears that the period between “200” and the un-quote sign in line 2 of the above quote is superfluous, and that the word “Is” continues the sentence and, therefore, should not have had an initial capital letter. With this assumption, and to the extent that the rejection is understood, applicants respectfully traverse.

First, 35 USC 112, **first** paragraph does not specify what must be included in a claim. Hence, an assertion that something is “not included in the claims” cannot form a basis for a rejection under 35 USC 112, first paragraph. Second, the idea that a claim must include that which is “critical to the invention” is not present in US law – at least in this form. Applicants are permitted to define their invention as broadly as the art permits, as long as it complies with 35 USC 101 (e.g., what is claimed is useful) and support is found in the specification for that which is claimed (35 USC 112, first paragraph). Third, even if it were required that critical or essential features of the invention must be included in the claims, it is respectfully submitted that there is nothing that is essential to the proper operation of claim 1 that is missing. In particular, there is nothing in the specification that states, or even merely suggests, that “self-describing data-independent binary format 200” is essential or critical, at least in the sense of the totality of the quoted phrase. Moreover, and as demonstrated below, the only significant aspect of this quoted phrase is, in fact, found in the claims.

Looking at the phrase “self-describing data-independent binary format 200,” it is noted that the phrase includes three notions. The first notion is that whatever the modules communicate with has a “self-describing” format; the second notion is that the self describing is a “data independent” format; and the third notion is that it is a “binary” format. The notion of a “self describing format” is actually described in the very

sentence cited by the Examiner (at page 6, line 1 of the specification), albeit in the portion that the Examiner chose to not quote; to wit; "... consisting of a header that defines the record size, type and data context, followed by the actual data." Respectfully, this description is quite sufficient for a person skilled in the art to know what is meant by "self descriptive" format. But the specification teaches more, by expanding the notion beyond the idea of a file that includes the self-describing header, to the idea that the self describing information can be contained in a record that is part of a separate schema file (page 6, lines 109 of the specification, et seq.). Combining the two teachings it is clear that (a) the notion of "self describing" is taught with sufficient depth to enable a person who is skilled in the art to understand and practice this notion, and (b) it is not essential or critical for the self describing aspect to be effected in any particular manner.

In any event, this notion is clearly found in the third element of claim 1. Thus, even though this notion is not critical, at least in the sense of any particular manner, it is present in claim 1.

As for the notion of a "data independent" format, that follows from the definition of the self-describing, which segregates the data, from information about the data. Clearly, in an arrangement that, for example, has a header that describes how to read the data that is followed by the data itself, the data does not dictate the information that is contained within the self descriptive portion, and it does not affect where or how that information is maintained. Hence, the format is data independent. Put in other words, the notion of "data dependent" in the context of the phrase quoted by the Examiner goes hand-in-hand with the "self-describing" notion.

Lastly, the notion of a "binary format" is, in a sense, trivial. All information that is handled by digital computers is – at the lowest level -- in binary format i.e., 1's and 0's. Certainly that is not an essential or critical aspect of anything (save, perhaps, if the invention related to an analog computer). At the higher level (file level) there are different formats, such as ASCII (plain-old "flat" file), word-processing files (e.g., MS WORD), database files (e.g., INFORMIX, ORACLE, Microsoft ACCESS), etc; but these are not generally referred to as "binary formats." Applicants' claim focuses on a specific file format – i.e., the self-describing file format – in combination with other elements.

Again, therefore, the “binary format” notion of the cited specification phrase is effectively subsumed in the notion of the self-describing file format.

As for the Examiner’s comment that Fig. 2 does not show a “binary format,” it simply goes to show that the notion of a binary format is simply not significant. In any event, “binary format” is not a phrase that is included in any of the claims, so the level of teaching detail for this notion is not material to the claims.

The Examiner further asserts that “it is known in the art that the binary format for data types is computer dependent.” This assertion also does not seem to be relevant or material to the claims, because the claims don’t mention “data types,” and neither does above-quoted phrase for that matter. Moreover the assertion is technically incorrect, if correctly understood by applicants. If some program chooses to define a certain “data type,” or a certain format is assigned to the data by design, it will be the same regardless of which computer executes the program or operates on the data. There is NO computer dependence.

Thus, and effectively to repeat, if there is anything at all that is essential to which the phrase that the Examiner quoted pertains, it would be the “self descriptive” notion, and this notion is (a) clearly and sufficiently described in the specification and (b) is found in the claims.

Lastly in connection with item 3 of the Office Action, the Examiner asserted that Applicant claimed only “self-describing format” which is an incomplete claim.

To the extent that this sentence by the Examiner is understood, it is believed incorrect. Claim 1 (before the present amendment, as well as amended) specifies a visualization interface, a plurality of processing tools, a means for accessing a plurality of data files, and a means that enables streaming data. That is certainly not a claim of “only” self describing format. Moreover, applicants do NOT perceive that there is anything that is incomplete about claim 1 and, therefore, do not believe that the claim as a whole is incomplete. However, if the Examiner still believes otherwise, applicants request that the Examiner explain what makes the claim incomplete, or what is missing.

In preparing this response it was realized that claim 1 can be made clearer by specifying that the information about the file is the information about the data in the file, so claim 1 is amended to make it clearer. Also, claim 1 is amended to explicitly include

the idea that the self-describing information can be contained in a record in a schema file that contains said information and is associated with said file. Support for this expanded view of “self describing” is found at page 6 of the specification.

Based on the above, it is respectfully submitted that claim 1, both prior to the present amendment, and as amended, complies with 35 USC 112, first paragraph. For the same reasons, it is respectfully submitted that claim 8 similarly complies with 35 USC 112, first paragraph.

Claims 1, 8, 11, and 16-17 were rejected under 35 USC 112, second paragraph. The Examiner asserts that the term “preselected” is a relative term which renders the claim in definite. Applicants respectfully disagree. Terms like bigger, larger, wider, etc. are relative, but “preselected” is not. Nevertheless, in order to advance prosecution, the term is excised from the claims, thereby overcoming the rejection.

Claims 1-17 were rejected under 35 USC 101. The Examiner merely repeats verbatim the rejection stated in the previous Office action. This rejection was argued and traversed in the previous Office Action response, and the Examiner’s provided a “Response to Arguments” is:

Examiner respectfully disagrees because claim 1 preamble visualization system does not make the whole claim as system claim, See MPEP 2106. Even when a claim that recites a computer that solely calculates a mathematical formula or a computer disk that solely stores a mathematical formula is not directed to the type of statutory subject matter eligible for patent protection.

Applicants respectfully traverse again.

First, Applicants note that MPEP 2106 is **7,139 words long**, not counting the “Guidelines Flowchart” at the end. A citation to such a large segment of text in support of the above assertion is like pointing to a haystack in support of the proposition that the proverbial needle is to be found there. This is particularly so where *neither the word “preamble” nor the word “system” is even found* in MPEP 2106.

Second, if the preamble asserts that what is being claimed is a system, it is respectfully submitted that the Examiner must accept that at the very least the claim promises to subsequently define elements that together create a system. As demonstrated in the previous Office Action response, claim 1 clearly defines elements, and at least some of them cannot be anything but hardware elements (for example, a visualization

interface is defined *on which one or more objects are displayed* –applicants know of nothing non-physical on which objects may be displayed). It is noted that the Examiner has not explicitly asserted in connection with each of the elements that they are not “hardware.” Claim 1 specifies a visualization interface that displays something, specifies a plurality of processing tools that operate on data files, which data is applied in a very specific manner (streaming), specifies means for accessing the files, and specifies means for enabling the streaming. None of the underscored notions are “abstract ideas,” and all of them are proper elements of a system.

There appears to be no reason to conclude that the system which preamble asserted will be defined by the elements that follow is not, in fact, defined. This is particularly so where, with respect to each of these elements, the Examiner failed to explain how the Examiner perceives that these elements do not contribute to the definition of a system, or how they somehow negate the idea that claim 1 defines a system, or how they are merely an abstract idea.

Third, applicants have **not** argued that claim 1 is statutory **because** the preamble specifies a visualization system. To the contrary, in support of applicants’ position that claim 1 specifies a system, applicants argued in the previous Office Action response by focusing on the elements following the preamble, and have not even mentioned the preamble.

In short, the Examiner’s first sentence quoted above does not support the Examiner’s refusal to accept applicants’ arguments as valid.

The Examiner’s second sentence, which is a verbatim copy of a sentence in the previously stated rejection and in the current rejection, contains a thought about computers (a claim that “recites a computer that solely calculates a mathematical formula”), and about disks (a claim that recites “a computer disk that solely stores a mathematical formula”). Respectfully, none of the claims are directed to a computer disk, and even the Examiner has not asserted that any of the claims does. Therefore, this second thought is irrelevant and immaterial. As for the first thought about computers, that appears to be the Examiner’s main thrust, but the Examiner has **not actually asserted** that any of the claims “recites a computer that solely calculates a mathematical formula.” Applicants respectfully submit that none of the claims defines a calculation of

a mathematical formula. Moreover, the undersigned had a telephone interview with the Examiner relative to this very point and, as was reported in the previous Office Action response, it was understood by the undersigned that the rejection was

based on the assertion that the claim is “abstract,” and not on an assertion that the claim is “mathematical.”

The Examiner has not disagreed with this characterization of the telephone discussion, so it is a puzzlement as to why the Examiner makes reference to a “computer that solely calculates a mathematical formula.”

As for the issue of the claim being “abstract,” applicants have addressed this issue in the previous response, have argued that nothing that is claimed is abstract, and the Examiner has not explicitly disagreed with applicants’ arguments; i.e., the Examiner had not commented on the arguments in his “Response to Arguments” section. Applicants respectfully submit that the claims do not claim mathematical operations and do not claim manipulation of abstract ideas and, therefore, they are statutory. Schrader, 22 F.3d at 293-294.

If one were to follow the PTO guidelines relative to 35 USC 101 issues and *inquire* as to what applicants have invented, it is clear that they have invented a system for handling large amounts of data by processing it so that it can be displayed. The human eye-brain combination can do a lot of processing quite effortlessly, and that is why the invented system has such great practical applicability. It is this system that has been claimed, and neither the claim nor the specification is so broad as to encompass any and all structure, material or acts for performing the claimed function. To give just one illustration, a system that offers a visual output corresponding to the large amounts of data can be constructed that does not use a self-describing format, or does not do its file operations by means of streaming. Indeed, such a system exists in the prior art. Specifically, for many decades now AT&T has had a “network status board” in Bedminster, NJ, where the entire national telephone network was displayed, with various lights that indicated whether some telephone routes were in trouble or not. The subject claims defines such a system. Although the claimed system is defined more broadly in the sense that it is not limited to telephony, it is quite different from the old system. Of course, a system that is defined broadly does not *ipso facto* become abstract or is otherwise in violation of 35 USC 101.

Although applicants firmly believe that claim 1 is statutory, and for the same reasons claim 8 is statutory, in order to advance prosecution, the claims are amended to add even more attributes of statutory subject matter. As amended, it is respectfully submitted that all of the claims are, without a doubt, statutory.

Claims 1-6 and 8-13 were rejected under 35 USC 103 as being unpatentable over Brown, US Patent 6,473,080 in view of Lakritz, US Patent 6,526,426 and further in view of Sattar, US Patent 6,154,728. Applicants respectfully traverse.

The previous Office action rejected these claims under the same grounds in view of only the Brown and Lakritz references, and the Examiner's remarks in the Conclusion section of the Action that applicants' amendment necessitated the new grounds for rejection. Additionally, in the "Response to Arguments" section the Examiner asserted that (a) "Lakritz do teach workflow pipeline", and that (b) "Lakritz teaches more details than the current invention."

Taking point (b) first, it is respectfully submitted that how **much** Lakritz teaches is not the issue, and a comparison to the **amount** taught by applicants is also not the issue. In applicants' view, Lakritz simply does not teach what applicants claimed; so it is not relevant how much text is devoted by Lakritz to teaching something else.

As for point (a) applicants have not asserted that Lakritz fails teach *workflow* but, rather, that Lakritz does not teach *streaming*. To put it explicitly, applicants submit that there is a difference between "workflow" and "streaming".

The following repeats some of the arguments in the previous Office Action response (to relieve the Examiner from having to go back to the previous amendment), and then adds some additional comments.

A number of facts bear highlighting. First, the translation of documents follows sometime after the documents have been updated. Second, the translation of documents may or may not take place, based on a decision made by the website manager. This means that translations are NOT carried out in response to a request for documents. Third, documents to be translated are held, i.e., stored, prior to the translation. Fourth, since documents are stored both prior to and following the translation, there is absolutely no need streaming data to and through processing tools.

It is understandable that the Examiner might surmise that the Workflow Pipeline corresponds to the means that enables steaming because the name of the element includes the word "Pipeline."

However, there is no teaching whatsoever that this elements enables streaming and, as indicated above, the fact that documents are stored prior to translation and following the translation provides no motivation for streaming of data. The actual implication of the name “Work Pipeline” for element 602 is that the workflow comprises a plurality of processes that are sequenced, seriatim. For example, process C follows process B, which follows process A. In other words, the “Workflow Pipeline” element specifies the sequence of the workflow. It has nothing to do with whether files are streamed through a processing tool, or not.

It is noted that the applicants’ specification describes streaming in UNIX and C language terms. It speaks of “pipelines” and of extending the traditional UNIX pipeline model. Hence, the meaning of “streaming” must be taken in the sense used by applicants. In the UNIX pipeline model, a file can be streamed – by using the “pipe” operator “|” -- which concurrently processes the data of a file by more than one process (e.g., more than one filter). So while one process is dealing with a file and has already developed some results, another process is concurrently working on those already-developed results. It’s not unlike a sausage-making process. During steady state operation, while a portion of the meats package is being ground in preparation for making the sausages, another portion that has been ground previously is being stuffed into sausage sleeves – all in one continuous operation.

As an aside, the notion of streaming is slightly different in the Internet environment (as compared to the UNIX, or processing, environment), but it still has the same flavor. As defined in Webopedia.com, for example, streaming is defines as

A technique for transferring data such that it can be processed as a steady and continuous stream. Emphasis supplied.

Workflow, or workflow pipeline, in contradistinction, simply means having an ordered arrangement of operations. There does not need to be a continuous stream, and there is no notion that more than one process operates on a file at the same time. Consequently, applicants submit that while Lakritz teaches workflow, he does NOT teach streaming. The closest that Lakritz comes to a description of streaming pertains to FIG. 9 and the associated teachings, in col. 9, line 64 through col. 10, line 20, and it’s precisely the workflow pipeline notion discussed above. What is being taught is that a document is accepted, a document is sent to generator 901, the format of the document is converted, the reformatted document is sent to adaptor 902, the adaptor sends the document to



translation resource 904, and when the document has been translated, the adaptor accepts the translated document, and sends it to parser 903. The operations are done , but there is no hint that these operations are done even in part **concurrently**! Only after the document has been sent to parser 903 are packets that collectively constitute the document are distributed back to the pipeline. Clearly the operation is seriatim, also clearly, the adaptor element 902 is involved twice which surely demonstrates the non-existence of streaming.

As for the Sattar reference, the Examiner states that

Brown and Lakritz do not explicitly teach using binary format. However, Sattar teaches the claimed, “converting to a preselected self-describing format that includes each data file” at Fig. 4, col. 9, lines 24-30.

First, it is respectfully submitted that the Examiner’s statement includes a non-sequitur. If Sattar teaches “converting to a preselected self-describing format that includes each data file” that says nothing about a “binary format.”

Second, neither the “binary format” nor the phrase quoted by the Examiner is found in any of applicants’ the claims.

Third, the Examiner probably meant to address the third element of claim 1, which states (prior to the current amendment)

means for accessing a plurality of data files that had been converted to a preselected self-describing format that includes, in each data file, information about the file.

So, the real question is whether Sattar teaches this element. Respectfully, it does not. FIG. 4 depicts a processor (410) with associated memory (440), a clock (430), and an input/output interface (420) that interfaces with a plurality of “field replaceable units” (FRUs). It shows nothing that can be interpreted to be dealing with data files that “had been converted to a preselected self-describing format that includes, in each data file, information about the file.” It also shows nothing that creates such file by means of a conversion. The cited text states:

As a consequence, the compiled inventory information may be generated (or encoded) and stored in any binary format compatible with a predetermined or preselected database format of database implementation such as INFORMIX, ORACLE, or simply ASCII code formats.


That is not a teaching of a self-describing format, and it is not a teaching of “means for accessing a plurality of data files that had been converted to a preselected self-describing format” (emphasis supplied).

Fourth, even if Sattar were to be describing a self-describing format, it is noted that the Sattar reference relates to inventory processing of remote cites such as cellular sites (“inventory management” class) and is quite unrelated to the subject of processing large amounts of data. A skilled artisan would not combine the Sattar reference with the Brown and Lakritz references.

In light of the above remarks, applicants respectfully submit that all of the Examiner's rejections have been overcome. Reconsideration and allowance are respectfully solicited.

Respectfully,  
Emden Gansner  
Eleftherios Koutsofios  
Stephen Charles North  
Russell N. Truscott

Dated: 5/3/07

By   
Henry T. Brendzel  
Reg. No. 26,844  
Phone (973) 467-2025  
Fax (973) 467-6589  
email [brendzel@comcast.net](mailto:brendzel@comcast.net)